

We claim:

1. A method for preparing cells for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:
  - 5       subjecting cells derived from lymph nodes excised from patients infected with HIV to mitogenic stimulation in serum-free media for their expansion.
2. The method of claim 1, wherein said mitogenic stimulation includes the presence of Interleukin-2 (IL-2) and anti-CD3 monoclonal antibody.
3. The method of claim 2, wherein said anti-CD3 monoclonal antibody is present at between about 1 and 100 ng/ml and said IL-2 is present at about 600 IU/ml.
4. The method of claim 3, wherein the amount of IL-2 is lowered to about 120 IU/ml after 7 days of expansion.
5. The method of claim 4, wherein said expansion extends to at least about 10 days.
6. The method of claim 1, wherein said serum-free media comprises serum-free macrophage media.
7. The method of claim 2, wherein said serum-free media comprises serum-free macrophage media.
8. A therapeutic agent for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:
  - 10       in a pharmaceutically-acceptable carrier, cytokine-producing cells having been produced by the step of subjecting cells derived from lymph nodes excised from patients infected with HIV to mitogenic stimulation in serum-free media for their expansion.
9. The therapeutic agent of claim 8, wherein said mitogenic stimulation includes the presence of Interleukin-2 (IL-2) and anti-CD3 monoclonal antibody.
10. The therapeutic agent of claim 9, wherein said anti-CD3 monoclonal antibody is present in an amount of between about 1 and 100 ng/ml and said IL-2 is present in an amount of about 600 IU/ml.

11. The therapeutic agent of claim 10, wherein the amount of IL-2 is lowered to about 120 IU/ml after 7 days of expansion.
12. The therapeutic agent of claim 11, wherein said expansion extends to at least about 10 days.
13. The therapeutic agent of claim 8, wherein said serum-free media comprises serum-free macrophage media.
14. The therapeutic agent of claim 9, wherein said serum-free media comprises serum-free macrophage media.
15. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 8.
16. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 9.
17. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 10.
18. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 11.
19. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 12.
20. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 13.
21. A method for treating patients afflicted with human immunodeficiency virus (HIV), which comprises:  
administering to said patient the therapeutic agent of claim 14.

4x-3

22. A method for preparing an enriched population of helper cells from lymph nodes excised from patients afflicted with human immunodeficiency virus (HIV), which comprises:

subjecting cells derived from lymph nodes excised from patients infected with HIV to mitogenic stimulation in serum-free media for their expansion.

23. The method of claim 22, wherein said mitogenic stimulation includes the presence of Interleukin-2 (IL-2) and anti-CD3 monoclonal antibody.

24. The method of claim 23, wherein said anti-CD3 monoclonal antibody is present at between about 1 and 100 ng/ml and said IL-2 is present at about 600 IU/ml.

25. The method of claim 24, wherein the amount of IL-2 is lowered to about 120 IU/ml after 7 days of expansion.

26. The method of claim 25, wherein said expansion extends to at least about 10 days.

27. The method of claim 22, wherein said serum-free media comprises serum-free macrophage media.

28. The method of claim 23, wherein said serum-free media comprises serum-free macrophage media.

29. An enriched helper cell population expanded by the method of claim 22.

30. An enriched helper cell population expanded by the method of claim 23.

31. An enriched helper cell population expanded by the method of claim 24.

32. An enriched helper cell population expanded by the method of claim 25.

33. An enriched helper cell population expanded by the method of claim 26.

34. An enriched helper cell population expanded by the method of claim 27.

35. An enriched helper cell population expanded by the method of claim 28.

42

36. A method for preparing cells for treating patients afflicted with a disease that leads to an immunosuppressed state in the patient, which comprises:

subjecting cells derived from lymph nodes excised from patients infected with said disease to mitogenic stimulation in serum-free media for their expansion.

37. The method of claim 36, wherein said disease results from a persistent or acute virus, a bacterial infection, or an autoimmune disease.

38. The method of claim 37, wherein said persistent or acute virus in an enveloped or non-enveloped RNA or DNA virus.

39. The method of claim 38, wherein said persistent or acute RNA virus is selected from one or more of picornaviruses, togaviruses, paramyxoviruses, orthomyxoviruses, rhabdoviruses, reoviruses, retroviruses, bunyaviruses, coronaviruses, and arenaviruses.

40. The method of claim 38, wherein said persistent or acute DNA virus is selected from one or more of parvoviruses, papoviruses, adenoviruses, herpesviruses, and poxviruses.

41. The method of claim 36, wherein said disease is selected from the group consisting essentially of HIV, tuberculosis, measles, dengue fever, malaria, hepatitis (chronic), leprosy, rheumatoid arthritis, multiple sclerosis, and canine distemper virus.